

## ACC Ottawa Guidelines - Scrambling Leader

### Scope

This document provides advice on "best practices" for ACC Ottawa amateur leaders leading Section trips where scrambling is the core activity. It is intended to help leaders plan and manage club trips. It should be read in conjunction with the "[ACC Ottawa Guidelines - Introduction](#)". Minor sections of class 2 or 3 scrambling inherently part of a backcountry hike are covered by the [backcountry hiking and backpacking guideline](#). Scrambling inherent to mountaineering trips, whether on rock or on prolonged segments of technical snow- or ice-covered terrain, is covered by the [mountaineering guidelines](#). Technical rock or ice climbing such as [top roping](#) and [advanced climbing](#) (including trad, sport and multi-pitch) are addressed in separate guidelines.

### Introduction

For the purposes of this document, scrambling is defined as:

- movement on 2nd, 3rd or 4th class terrain (which may include short, low-fifth class, near vertical steps up to 3 m in height) – see scrambling level definitions below
- mainly on rock but may involve short sections of low-angle snow or ice requiring a mountaineering axe and perhaps crampons
- movement may be roped or unroped
- if roped:
  - generally uses natural protection while simul-climbing or short-roping
  - may use simple belays and occasional gear protection for short exposed bits
  - generally does not resort to fixed anchors, technical belays, running technical protection and pitched climbing (i.e. fifth class climbing)
- often involves ascent or descent of scree and talus slopes
- may use low angle snow slopes deemed to be safe for faster ascent and descent
- does not include steep ice or steep snow slopes
- does not include glacier travel

Note that simul-climbing and short-roping are advanced mountaineering techniques. They cannot be learned from a book and are best developed with professional instruction.

The overall seriousness of a scramble will vary depending on the locality. In the East, scrambling may constitute just a small portion of a larger hike, while in the West it may be the dominant aspect of an outing, involving many hours in more difficult and exposed terrain. In either case, potential risks from rock fall and exposure can be similar, and similar precautions

are needed. Eastern scrambling may differ in one respect – if the scrambling component of the outing is short, it is less committing and concerns over participant fatigue are lessened.

### **Scrambling Level Definitions**

The definition of scrambling levels is based on the Yosemite Decimal System (YDS).

Unfortunately, there is no widely accepted definition within the climbing community of what each class encompasses. It is not unusual for similar scrambles to differ by a full class level in different regions. Recently developed climbing areas tend to have soft grades, while those from the early days of climbing typically have stiffer grades for climbs or scrambles of the same level of technical difficulty. What old-school climbers dismissed as merely fourth class is often seen as low-to-mid fifth class in modern climbing areas, yet local climbing guides often retain the original rating for historical reasons. Hiker-climber-scrambler-mountaineer beware!

With these caveats, here is how ACC Ottawa defines climbing and scrambling levels.

- Class 1: Hiking, which may be in rough and trail-less terrain.
- Class 2: Simple scrambling with some exposure. Hands occasionally used for balance. The route is fairly obvious. A slip would normally result in no more than minor injuries. A rope may be carried but is normally not required on the ascent. Down climbing is routine for experienced scramblers, but may be slow with novices and some may desire a rope.
- Class 3: Intermediate scrambling with increased exposure. Comfort climbing with exposure is required. Hands are frequently used for balance and for climbing holds. Basic route finding skills are required. A rope is often carried but frequently not used by experienced climbers on the ascent. However, a rope should be available for novices. Injuries from un-roped falls could be severe, but usually not fatal. Down climbing may be intimidating for novices, while merely exacting for experienced scramblers.
- Class 4: Difficult, steep scrambling with considerable exposure and much use of hand holds. Sections may be steep, loose and exposed or the rock may be smooth and down-sloping. Skill in moving on steep rock is required. A rope and simple belays are normally used by all but the most experienced and bold climbers. Natural protection can be easily found by experienced climbers. Considerable skill is required in route finding. Getting off route could require technical climbing skills and gear. Un-roped falls may well be fatal. Some very experienced and confident scramblers may down climb, while others will opt to rappel.
- Class 5: Technical free climbing involving a rope, belaying, and other protection hardware for safety. Un-roped falls can result in severe injury or death.

An anonymous climber with a sense of humour boiled down the distinctions between scrambling classes to the consequences of an un-roped fall:

- Class 1: you fall, you are a klutz.
- Class 2: you fall, you break your arm.

- Class 3: you fall, you break your leg.
- Class 4: you fall, you are almost dead.
- Class 5: you fall, you are dead.

In practice, the class 1 designation is never used. Class 5 climbing is covered by the [Top Rope](#), [Advanced Climbing](#) and [Mountaineering](#) guidelines. This guideline deals with class 2, 3 and 4 scrambling.

### **Participant Screening**

To quote Alan Kane: "Unroped scrambling is one of the most potentially dangerous mountain activities, especially where exposure (fall distance) is significant." Once the scramble begins, the Trip Leader's direct control over events is diminished as participants will be solo climbing if unroped or in small, separate rope teams. Consequently, the prudent scrambling leader should put as much care into events prior to the trip (namely trip planning and participant screening) as "supervising" the actual scrambling itself, to the extent that the later is possible.

It is essential to match the scramble to the skill and experience level of the participants. This is relatively easy to do if both the scramble and all participants are known to the Trip Leader. Most experienced hikers should be comfortable with 2nd class scrambling. Some prior scrambling and/or technical climbing experience will be of benefit on 3rd class terrain. Fourth class terrain is the domain of the experienced scrambler/mountaineer/climber. It is inadvisable to conduct a 4th class scramble as a club outing that the Trip Leader has not already done personally or with scramblers who are not well known to the Trip Leader.

Careful participant screening is essential for safety. Do not accept any participant you don't know personally without researching their training, experience, skill level, fitness and composure. It is also advisable to keep group size small and to engage the support of one or more other experienced and trusted assistant scrambling leaders.

### **Route Finding**

Route finding, a core skill of the experienced scrambler, involves finding the safest and most efficient line whilst avoiding technical (5th class) terrain. This contrasts with rock climbing where the most difficult route is often sought for the challenge. Route finding involves thinking ahead at the macro level (the overall climb or the next major segment of the climb), the medium level (the next "pitch" or 50 meters or so) and the micro (the next few moves).

### **Rate of Progress**

A scrambling outing, particularly if it involves a larger group or one with less experienced participants, can be far more time consuming than expected. In situations where a rope is needed to ensure safety or to provide reassurance to participants, progress can be very slow indeed, increasing the likelihood that the trip will take longer to complete than planned. Except where the group is small and well experienced, leaders should use conservative assumptions about the group's probable speed of travel. A scrambling route that looks quite straightforward from afar can prove much more difficult from close up.

### **Route Conditions**

The good scrambling leader should also be thinking about other factors. If the route is not in condition, be prepared to make an early change of plans - a different route or a different mountain or alternative dates. Route descriptions are usually given for dry conditions, free of snow and ice. The difficulty of the route increases substantially or may be infeasible when wet, snowy or icy. Sudden rain on a lichen-covered slab can turn an easy, fun scramble into a heart-stopping epic. Afternoon thunderstorms can be deadly. It is therefore essential to monitor weather and altitude-related changes and, if necessary, revise plans earlier rather than later.

Descent is usually much harder than ascent. Before committing to the ascent of any section of the climb, it is important to determine a descent option that is feasible for the skill level of the party. The leader should determine, in advance, the likelihood of participants requiring the equipment and skill to make short rappels on the descent.

### **Exposure**

Being comfortable with and safely handling climbing exposure (fall potential) is an art that demands technical training, good judgement and years of experience. It is best learned through professional instruction and by cautiously and incrementally expanding one's experience base. The scrambling leader should be able to match the scrambling technique to suit the terrain - knowing when to use the rope and when not to, using natural protection, being efficient in transitions between modes of travel. These are skills not quickly learned.

Scrambling leaders should be alert for signs of distress in team members and be proactive in asking if participants are comfortable with the situation or would prefer a rope and belay. Participants should understand it is never unseemly to express concern or to ask for the rope.

### **Rockfall**

Rockfall is a leading cause of scrambling accidents. At altitude, the hazard typically increases during the day as solar heating frees rocks previously secured by surface ice. It is advisable to:

- always wear helmets in areas of objective rockfall hazard

- listen and observe for signs of rockfall
- use "quiet feet" i.e. careful, deliberate foot steps
- check the stability of handholds before a committing move
- shout out "ROCK" if a rock is inadvertently dislodged
- have the group move either in close proximity or well spread out
- avoid 'stacking' participants on the fall line or in narrow features such as couloirs
- avoid climbing directly above or directly below another party or climber
- on scree faces, use a traversing line on ascent and separate fall line paths on descent
- if possible, avoid gullies which tend to accumulate and channel rock fall

### **Avalanche Safety**

The primary strategy should be avalanche avoidance. This requires proficiency in terrain assessment and route planning. Steep south and west facing snow-covered bowls and faces demand careful consideration. Ridgelines may be a safer option. Cornices should be given a wide berth. Leaders should seek advice from park safety wardens and guides regarding avalanche hazards in the areas of concern and adjust travel plans accordingly.

### **Emergencies and Self-Reliance**

Both leader and participants should be fit, self-reliant and able to deal with the worst case emergency scenario - an unscheduled bivouac taking care of an accident victim. This does not mean enough gear to go camping i.e. go lightweight but have the essentials to survive a night on the mountain (not necessarily in comfort).

### **Communications**

Depending on the remoteness of the climb, some form of external and local emergency communications may be advisable. With few exceptions, cell phones do not work in the backcountry. Alternatives include Sat Phone, VHF transceiver or SPOT message device. Each has pros and cons. FRS/GMRS radios can be very useful for short range (~2-3 km) contact between scrambling teams and may be the only means for the Trip Leader to exercise overall coordination once scrambling begins.

### **First Aid Qualification**

Either the Trip Leader or an Assistant Trip Leader should be "[AWFA-qualified](#)".

### **Guidelines for Scrambling Trip Leaders**

- 1) prepare for a scrambling trip:
  - a) select an area, terrain and route for the desired level of scrambling difficulty (2nd, 3rd or 4th class); this should include a Plan A (good conditions) and Plan B (poor conditions)

- b) monitor weather and trip reports from the targeted area
  - c) prepare and publish a trip notice in conjunction with the Mountaineering Coordinator, clearly defining the level of trip difficulty, group size limit and participant fitness, skill, experience and equipment requirements
  - d) carefully screen trip participants, offering constructive suggestions for alternatives to those who do not possess the necessary fitness, skill, experience or equipment
  - e) advise participants on gear, clothing and supplies appropriate for the trip:
    - i) essential personal and climbing equipment (boots with good soles and possibly climbing shoes, helmet, harness or sufficient webbing to improvise a harness, belay device, cordelette, a few slings and biners)
    - ii) mountaineering axe, crampons or traction aids and ski pole (as appropriate)
    - iii) a headlamp, layered clothing and a personal micro-first aid kit
    - iv) ensure adequate water and high energy food and snacks for the trail
  - f) consider appropriate group climbing gear: scrambling rope, cordelettes, minimal rock pro, extra slings, webbing, biners, leave-behind rap gear
  - g) consider appropriate group safety gear: group first aid kit, tarp, insulated pad
  - h) organize trip logistics such as transportation, hut bookings, meals, etc. as appropriate
  - i) research emergency contacts for the area, communication options and conceptualize how an accident would be handled
  - j) ensure all participants read and sign the trip waiver prior to the trip; pass the signed waiver to the Mountaineering Coordinator at the earliest opportunity
- 2) knowledgeable and skilled in:
- a) skilled backcountry navigator with map and compass
  - b) bushcraft skills: improvise an emergency shelter, light a fire under adverse conditions
  - c) knowledgeable about clothing layering options for efficient backcountry travel
  - d) preventing, recognizing and treating hypothermia
  - e) monitoring and interpreting alpine weather signs
  - f) good route finding skills to remain on the scrambling route and avoid technical climbing
  - g) efficient rope handling skills
  - h) proficiency in scrambling up and down moderately steep rock, ice and snow and in modeling effective scrambling technique to lesser-experienced trip participants
  - i) skilled in minimizing and avoiding rock fall
  - j) recognizing and avoiding avalanche terrain
  - k) recognizing and dealing with scrambling hazards: changing weather, rock fall, exposure
  - l) level-headed, calm and resourceful in an emergency
- 3) supervise trip safety:
- a) delegate tasks to assistant trip leaders and engage other experienced participants
  - b) double-check items of participant gear and supplies considered critical to the trip

- c) brief participants on trip-specific safety hazards and safety procedures
- d) set a turnaround time
- e) maintain situational awareness with respect to terrain, weather, location, speed of travel, time of day, participant energy level and frame of mind, etc. and be ready to change plans, if appropriate
- f) good judgment to make tough, perhaps unpopular, safety-related decisions
- g) understand the club Emergency Response Protocol and take charge in an emergency

### **Useful References**

1. "Alpine Skills: Summer", Petzl Foundation and Alpine Club of Canada, 2013.
2. "Mountaineering: The Freedom of the Hills", The Mountaineers, Seattle, 8<sup>th</sup> Ed., 2010.
3. "Technical Handbook for Professional Mountain Guides", Association of Canadian Mountain Guides (ACMG) and American Mountain Guides Association (AMGA), 1999.
4. "Scrambles in the Canadian Rockies", Alan Kane, Rocky Mountain Books, 1999.
5. "A Hiker's Guide to Scrambling Safely", Tom Morin, Rocky Mountain Books, 2005.
6. "[Shortroping 100 – Shortening the Rope](#)", Cyril Shokoples, 2005.
7. "[Shortroping 201: Advanced Rope Techniques for the Aspiring Excellent Leader](#)", Cyril Shokoples, 2005.
8. "The Complete Guide to Rope Techniques", Nigel Shepherd, 2007, A Falcon Guide, Chapter 8, Short roping and moving together.
9. "Backcountry Avalanche Awareness", Bruce Jamieson, 8<sup>th</sup> Ed., Canadian Avalanche Assoc.